METHOD OF INCREASING PRODUCT EXPRESSION THROUGH SOLUTE STRESS

Abstract

A method of determining the optimal level of product expression and cell growth of animal cell culture is described. The method generally comprises culturing cells under conditions of solute stress, that is, under conditions whereby optimal cell growth or growth rate is decreased yet levels of product expression are increased. In a preferred embodiment of the invention is described a method of increasing the yield of monoclonal antibodies comprising culturing hybridoma cells in an environment of solute stress. One approach to the creation of such an environment is the addition of inorganic salts, organic polyols, or metabolic products to the culture medium. One- to three-fold increases in antibody yield have been obtained by these methods.